

# CLAIMS:

1. A modified particle (A) obtained by a process comprising contacting the following (a), (b) and (c):

(a) a compound represented by the formula [1];

5  $\text{BiL}_m^1$  [1],

(b) a compound represented by the following formula [2];

$\text{R}^1_{t-n}\text{TH}_n$  [2], and

(c) particle,

wherein m is a numeral corresponding to a valence of Bi;  $\text{L}^1$  is a hydrogen atom, a halogen atom, a hydrocarbon group or a hydrocarbon oxy group, when more than one  $\text{L}^1$  exist, they may be the same or different from one another;  $\text{R}^1$  is an electron-withdrawing group or an electron-withdrawing group-containing group, when more than one  $\text{R}^1$  exists, they may be the same or different from one another; T represents a non-metal atom of Group 15 or 16 of the periodic table; t is a numeral corresponding to a valence of T; n is an integer of 1 to t excluding 2.

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2. The modified particle according to Claim 1, wherein T is an oxygen atom.

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3. The modified particle according to Claim 1 or 2, wherein  $\text{R}^1$  is a halogenated hydrocarbon group.

4. The modified particle according to any of Claims 1 to 3, wherein m is 3.

25 5. A catalyst component for addition polymerization, which is composed of the modified particle according to any of Claims 1 to 4.

6. A catalyst for addition polymerization, which is obtained by a process comprising contacting the modified particle (A)

according to any of Claims 1 to 4 and a transition metal compound (B) of Groups 3 to 11 or lanthanoide series.

7. A catalyst for addition polymerization, which is obtained by a process comprising contacting the modified particle (A) according to any of Claims 1 to 4, a transition metal compound (B) of Groups 3 to 11 or lanthanoide series and an organoaluminum compound (C).

8. The catalyst for addition polymerization according to Claim 6 or 7, wherein the transition metal compound (B) of the Groups 3 to 11 or lanthanoide series is a metallocene compound.

9. A process for producing an addition polymer, which comprises polymerizing an addition polymerizable monomer with the catalyst for addition polymerization of any of Claims 6 to 8.

10. The process according to Claim 9, wherein the addition polymerizable monomer is an olefin.

11. The process according to Claim 10, wherein the olefin is a mixture of ethylene with an  $\alpha$ -olefin.